

**INDIAN BUREAU OF MINES
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

MCDR INSPECTION REPORT

Goa regional office

Mine file No : MAH/RTG/BX-8/GOA

Mine code : 07MSH20004

- (i) Name of the Inspecting : **J003**) **JANGID G K**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Sh Sudheer Godebole, Dy. G.M. and Sh Pradeep Shinde,
Official with
Designation
- (iv) Date of Inspection : 19/09/2013
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ROVLE BAUXITE MINE**
- (b) Category : A Fully Mechanised
- (c) Type of Working : Opencast
- (d) Postal address
State : MAHARASHTRA
District : RATNAGIRI
Village : ROVAL
Taluka : DAPOLI
Post office : KELSHI
Pin Code : 415717
FAX No. : rbp@ashapura.com
E-mail : 022-22074452
Phone : 022-66651700, +91982091170
- (e) Police Station : Dapoli
- (f) First opening date : 01/07/2005
2. Address for : 986,Annab Villa, Khonda Area,
correspondance Mandangad Road, Dapoli, Tal:Dapoli
DISTRICT - RATNAGIRI, 415712
3. (a) Lease Number : MSH0314
- (b) Lease area : 218.28
- (c) Period of lease : 20
- (d) Date of Expiry : 14/02/2025
4. Mineral worked : BAUXITE Main

5. Name and Address of the

Lessee : ASHAPURA MINECHEM LIMITED
278, 3rd FLOOR, JEEVAN
UDYOG BUILDING, D.N. ROAD,
FORT, MUMBAI (SUBURBAN)
MAHARASHTRA
Phone:022-66651700, +919820911703
FAX :022-22074452

Owner : ASHAPURA MINECHEM LIMITED
JEEVAN UDYOG BUILDING, 278,
D.N. ROAD, FORT, MUMBAI -
400 001. GREATER BOMBAY
MAHARASHTRA
Phone:
FAX :

Agent : Rajnikant B. Pajwani
Ashapura Minechem Ltd.
Jeevan Udyog Building, 3rd
Floor, 278, D.N. Road,
Fort, Mumbai MUMBAI
(SUBURBAN) MAHARASHTRA
Phone: 022-66651700, +919820911703
FAX : 022-22074452

Mining Engineer

Name : BHALCHANDRA TONG, Full Time
Qualification : B.E., MINING & 18 years experience
Appointment/ : 12/10/2009
Termination date

Geologist

Name : Digvijay Ghodake, Full Time
Qualification : Msc. Geology and 4 years experience
Appointment/ : 07/09/2013
Termination date

6. Date of approval of Mining : 01/07/2011
Plan/Scheme of Mining

PART - II : TECHNICAL DETAILS/COMMENTS**1. Details about Average employment :**

Maximum number of persons employed on any day during the year

Employment category	No. of employment	Av. yearly working days
DIRECT		
Managerial	2	299
Supervisory	15	299
CONTRACT		
Plant	0	0
Ministrial	0	0
Others	0	0
Workers	5	299

2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.

Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
General					
Sanitation	0.00	0.07	0.00	0.50	
Housing	0.00	3.91	0.00	5.50	
Water supply	0.00	0.00	0.00	0.25	
Health	0.00	0.00	0.00	0.65	
Safety	0.00	0.85	0.00	1.85	
Medical facility	0.00	0.15	0.00	0.55	
Sub total	0.00	4.98	0.00	9.30	
Infrastructure					
Public transport	0.00	0.00	0.96	1.60	
Communication	0.00	0.00	0.72	1.35	
Electricity	0.00	0.00	0.00	0.00	
Roads	0.00	0.00	9.60	40.00	
Sub total	0.00	0.00	4.98	42.95	
Employment	0.00	0.00	10.00	125.00	
Training	0.00	0.00	0.03	0.25	
Environment management	0.00	0.00	26.00	55.00	
Others	0.00	0.00	9.83	15.00	
Sports activities	0.00	0.00	0.45	0.75	
Recreation	0.00	0.00	1.40	3.50	
Total	0.00	0.00	63.97	251.75	

3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.

Mine was last inspected on 18.02.2011 for SOM and no violation was observed of MCDR 1988. Violation for rule 13(1) was issued after current inspection.

4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988, if recommended.

Suspension of mining operations under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 1988 is not recommended. However, if lessee failed to comply rule 13(1) within stipulated time, followup action will be initiated for logical end.

5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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A. Exploration (Rule 13)

a.Type of prospecting and exploration i.e. pitting, drilling	: Additional exploration was not proposed during 2012-13. Although 135 trial pits & 10 holes were proposed in 2011-12.	Total 95 nos. of drill hole drilled in past.	
b.Total area covered	: Additional exploration was not proposed during 2012-13. Although 135 trial pits & 10 holes were proposed in 2011-12.	Total area covered is 6.51ha at 50m x 50m grid interval.	

B. Working (Rule 13)

c.Ore to waste ratio pit wise if possible otherwise for mine	: Mineral @ 80 % and Sub-grade & Reject generation @ 20% from ROM.	Mineral @ 95.55 % and Sub-grade & Reject generation @ 4.45% from ROM.	
b.Bench size(LxWxH)length can be defined as regular/irregular	: There is no top soil and one bench in mineral of 4-5m ht as per bauxite depth was proposed.	There is no top soil and one bench in mineral of 4-5m ht as per bauxite depth was observed in all pits.	
a.Number and size of each pit (LxWxH)	: There were four pits as on 01.04.2011 in block-I and further planned to merged all these four pits in 2010-11 and further advancement in east & west direction in subsequent years.	There are eight separate pits in Block-I and nine separate pits in block-II. Size of the pits are 480mX220mX5m, 190mX50mX5m, 120mX70mX5m, 40mX50mX4m, 60mX55mX5m, 85mX35mX5m, 80mX35mX5m, 125mX90mX5m in Block-I and 240mX70mX5m, 120mX80mX5m, 100mX35mX5m, 160mX100mX5m, 50mX40mX4m, 150mX50mX5m, 60mX60mX5m and 50mX50mX5m in Block-II.	
d.Total area covered under excavation/pits	: Area proposed under pit was 55.56ha at the end of 2012-13.	Total area covered under different pits is 31.38ha.	

C. Waste disposal (Rule 13)

a.Location of dumps	: Reject generation @ 20% of ROM was proposed to use for reclamation of mined out area and	Reject generation was @ 4.45% of ROM & used for reclamation of mined out pit-1 and total reclaimed area is 5.5ha.	
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- it was 11.11ha area during 2012-13.
- b.Method of dumping whether advancing/retreat : Backfilling over mined out area was proposed, as deposit is shallow in depth. Backfilling over mined out area was carried out. Reject generation was less and reclaimed 5.5ha area is also less.
- c.Total area covered under waste dump. : Backfilling over 23.73ha area was proposed at the end of 2012-13. Backfilling over mined out area was carried out.
- e.Yearly generation of waste quantity. : Total 2.0lact reject generation @ 20% of ROM was proposed every year. Reject generation was 11450t during 2012-13.

D. Production

- b.Year wise production of last five year. : Year wise production target of last five year were 7787353.2t for last three years and 250000t for before two years. Production reported during last five year were 249200t, 249909t, 390560t, 164115t, 380t from 2008-09 to 2012-13.

D. Reserve

- a.Reserve position as per latest MP/MS and at the time of inspection. : Estimated reserves were 7727165t under 111 category. Balance reserves as on 01.04.2013 is 2383345t .

RESERVE POSITION AS ON 01/04/2013

BAUXITE		
Category	Quantity in Tonnes	Grade
Proved	5334285	Al2O3 45 to 52%
Probable	2392880	Al2O3 45 to 52%
Possible	0	
Total	7727165	Al2O3 45 to 52%

PRODUCTION FOR THE PREVIOUS YEAR 2012 - 2013

Mineral	Production	Unit
BAUXITE	249200	TON

6. Conservation of Mineral - both quantitative and qualitative**Beneficiation (Rule 20 and 26)**

- Efforts for improving low grade and sub grade mineral. : Mobile screening plant is used for improvement of low grade and sub grade mineral.
- Efforts for improving percentage of recovery of ore. : Mobile screening plant is used for improving percentage of recovery of ore. It has improved from 80% reported in SOM to 95.55% as on date.

Mineral Rule 15

- Percentage of recovery of ore : Mineral recovery from ROM is 95.55% and Sub-grade & pitwise w.r.t. ROM and total material reject generation around 4.45%.
- Number of benches in ore and waste. : There are one-two benches in all the pits. Avg. Ht. of Bench in mineral is 2.5m. with Avg. Width of 10m. Avg. Ht of Bench 1.5m.in OB with Avg. Width of 5m.

Sub/grd mineral/fines (Rule16)

- Qty of yearly generation and total qty available during inspection with grade : Total ROM was 311500t and 43043.35t reject generated.
- Number and size of each stack : There are more than ten mineral stacks within lease area and total quantity is 43043.35t.
- Location of stacking. : Within Mine Lease near pit and office building.
- Separate stacking from waste : Yes, mineral is separately stacked at surface level.
- Total area covered for stacking : Total area covered for stacking is 0.8ha.

Exploration data as on 31/03/ 2013

No. of Boreholes	No. of Pits	No. of Trenches
95	0	0
0	12	0

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2012 - 2013

Overburden/waste removed (in m3) :	6361
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Utilisation of Sub Grade Mineral and Mineral Rejects

	Generated	Utilised	Stacked	(In Ton.)
BAUXITE				
Sub Grade Mineral ->	5200	0	5200	
Mineral Rejects ->	0	0	0	

7. Environment Management - both quantitative and qualitativ

A. Land environment

- a. Landscape. : RL :Minimum :- 185.07m., Maximum :- 308.265m. The Lease area is undulating.
- b. Aesthetic environment : Afforestation is carried out on the Backfilled area, 5600 saplings have been planted.
- c. Soil and land use pattern : The Lease area is covered with Laterite which is acting as topsoil for plantation.
- d. Agriculture : The Lease area is mostly having shrubs. No agricultural area within lease, Rice, Millets, Mango, Cashew are agricultural crops cultivated in surrounding lease areas.
- e. Forest(flora and fauna) : The area is Private non-Forest revenue Land.
- f. Vegetation : Natural vegetation in the form of shrubs is there in lease area. Surrounding Lease area occupied by vegetation like Mango, Kokum, Cashew, Chikku.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : Hanuman Temple at Rovale village is there.

B Water environment.

- a. Surface water : Bauxite mining operation does not dispose off any effluent in the watercourses. The area receives normal rainfall & it is coastal hilly terrain.
- b. Ground water : The bauxite mining operations are confined to 4 to 6m from surface. The bauxite mining operations on the plateau does not have adverse impact on ground water.
- c. Quality of water : There are no any effluents generated from Mining Operation. Water is naturally flowing in nalah.

C. Air environment

- a. Noise : Mining operations are with small excavator and jaw crusher with screen is used for separation of reject material. Noise level is within permissible limit.
- b. Air : Continuous air quality monitoring is carried out ,there is proper maintenance of tar-road for transportation of minerals.
- c. Climatic condition : The climatic condition of the area is hilly terrain and receive more than 4000mm rain. Dense afforestation is there in surrounding area.

D. Socio economic environment

- a. Social and demographic profile. : The mine is situated in the coastal hilly terrain area. The main occupation of the people is rain depended farming. Due to uneven topographic condition & less availability of the soil, the agricultural output is comparatively low & there are no major industries in the area. The mining operations is providing direct & indirect employment to more than 50 persons.
- b. Recommending health and safety. : Moderate amount of dust generated is being suppressed by water sprinkling system and by water tankers. Training relating to Health and Safety is been given to Employees. Medical Camp is been

Organized in Villages. Bauxite does not contain any toxic elements. Hence the possibility of any health hazards is minimum.

- c. Human settlement : There is No Human Settlement in Lease area. Nearby Surrounding villages are Rovle, Kelshi, Wanjloli and Occupied with thin Human Settlements.
- d. Recreational facility. : There is Rest Shelter, canteen, Toilets constructed for Mine Officials in the Mine. Temporary arrangement for Playing Volleyball is present at Site. Indoor games are also encouraged (Chess). Provision of Television is there for Mine Officials.

7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>						<u>2012 - 2013</u>		Area in Hect.
Within lease area			Outside lease area					
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate			
2	1500	80	0	0	0			

<u>TOP SOIL MANAGEMENT</u>		
<u>Quantity as on 31/03/2013</u>		
Cumulative quantity in tonne		
Generated	Utilised	Balance
.01	.01	0

8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.

- a) Land use pattern: 1. Exploited & abandoned by O/C mines-13.04 Ha. 2 Covered under O/C working - 18.34 Ha 3 Reclaimed & Rehabilitated-5.75 Ha 4 Waste Disposal - 0.55 Ha 5 Plants, blds, roads-0.20Ha
- b) Reserves: 7727165 MT
- c) Quantity of overburden / waste rock generation: 11450t

PART - III : PERFORMANCE OF MINE OWNER
(In case of lease expiring within 2 years - as per guidelines)

a. Compliance of terms and conditions of lease deed.

Lease was granted vide MMN-1003/C-R550/IND-9 dated:27/10/2004 over 218.285ha non-forest area for a period of 20 Years from 14/02/2005 to 13/02/2025 for Fresh Grant

b. Compliance of the provisions of MCDR, 88 and advise given.

Mining Plan was approved vide letter No. MP/MAN-572(MAH)/GOA/2004-05 Dated 02/02/2005 for the period from 2005-16 to 2009-10.

Scheme of mining was approved vide letter No. MS/RTNG/GOA[MAH]/BX.50.SZ/325 Dated 01/07/2011 for the period from 2010-11 to 2014-15.

PART - IV : PROPOSALS FOR FURTHER ACTION FOR :

Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)

None at present.

State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)

None at present.

The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)

None at present.

Date :

(JANGID G K)

Indian Bureau of Mines